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TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371		ATTORNEY'S DOCKET NUMBER 502424.117539 U.S. APPLICATION NO. (If known, see 37 CFR 1.5) 10/586902
INTERNATIONAL APPLICATION NO. PCT/DK2005/000046	INTERNATIONAL FILING DATE 24 January 2005 (14.01.2005)	PRIORITY DATE CLAIMED 23 January 2004 (26.01.2004)
TITLE OF INVENTION A CONNECTOR BOX PARTLY EMBEDDED IN A FIBRE-REINFORCED PART FOR PROTECTING AND CONNECTING		
APPLICANT(S) FOR DO/EO/US MORTENSEN, Ivan Engmark, JENSEN, Lars Erik		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
1. <input checked="" type="checkbox"/> This is a FIRST submission of items concerning a submission under 35 U.S.C. 371. 2. <input type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a submission under 35 U.S.C. 371. 3. <input checked="" type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below. 4. <input checked="" type="checkbox"/> The US has been elected (Article 31). 5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2)) a. <input checked="" type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau). b. <input checked="" type="checkbox"/> has been communicated by the International Bureau. c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US). 6. <input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)). a. <input type="checkbox"/> is attached hereto. b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4). 7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau). b. <input type="checkbox"/> have been communicated by the International Bureau. c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired. d. <input type="checkbox"/> have not been made and will not be made. 8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). 9. <input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). 10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)). Items 11 to 20 below concern document(s) or information included: 11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98. 12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included. 13. <input checked="" type="checkbox"/> A preliminary amendment. 14. <input type="checkbox"/> An Application Data Sheet under 37 CFR 1.76. 15. <input type="checkbox"/> A substitute specification. 16. <input type="checkbox"/> A power of attorney and/or change of address letter. 17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825. 18. <input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4). 19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4). 20. <input checked="" type="checkbox"/> Other items or information: PCT REQ., PCT/IB 304,308 and 332; PCT Pamphlet, DEMAND, IPRP, IDS		

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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The following fees have been submitted				CALCULATIONS	PTO USE ONLY
21. <input checked="" type="checkbox"/> Basic national fee..... \$300				\$ 300	
22. <input checked="" type="checkbox"/> Examination fee If International preliminary examination report prepared by USPTO and all claims satisfy provisions of PCT Article 33(1)-(4)..... \$100 All other situations..... \$200				\$ 200	
23. <input checked="" type="checkbox"/> Search fee Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority..... \$100 International Search Report prepared and provided to the Office..... \$400 All other situations..... \$500				\$ 400	
TOTAL OF 21, 22 and 23 =				\$ 900	
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.					
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole number)	RATE		
- 100 =	/50 =		x \$250	\$	
Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492(h)).				\$	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	\$	
Total claims	12 - 20 =	-	x \$ 50	\$	
Independent claims	1 - 3 =	-	x \$200	\$ -	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$360	\$	
TOTAL OF ABOVE CALCULATIONS =				\$ 900	
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.					
SUBTOTAL =				\$ 900	
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).				\$	
TOTAL NATIONAL FEE =				\$ 900	
Pee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property				\$	
TOTAL FEES ENCLOSED =				\$ 900	
				Amount to be refunded:	\$
				Amount to be charged:	\$
<p>a. <input checked="" type="checkbox"/> A check in the amount of \$ <u>900</u> to cover the above fees is enclosed.</p> <p>b. <input type="checkbox"/> Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed.</p> <p>c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>50-1145</u>. A duplicate copy of this sheet is enclosed.</p> <p>d. <input type="checkbox"/> Fees are to be charged to a credit card. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.</p>					
<p>NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.</p>					
<p>SEND ALL CORRESPONDENCE TO:</p> <p>Gerald Levy, Esq. PITNEY HARDIN LLP 7 Times Square New York, NY 10036-7311 212.297.5800</p>					
				SIGNATURE	
				Gerald Levy	
				NAME	
				24,419	
				REGISTRATION NUMBER	

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AP20 Rec'd PCT/PTO 21 JUL 2006

European Patent Office
D-80298 München
Germany

VIA FACSIMILE ONLY – 21 PAGES

Date 21 November 2005
Your ref.
Our ref. P200302047 WO 1 JMW/MMN

Dear Sirs

**International Patent Application No. DK2005000046 - PCT
LM Glasfiber A/S**

Referring to the International Search Report and the Written Opinion of the ISA dated 25 May 2005 we hereby file a Demand for International Preliminary Examination, cf. the enclosed Form PCT/IPEA/401. At the same time we kindly request the Examiner to consider our following comments:

Closest prior art:

Prior art referred to in the present response comprise:
D1: US 5 533 165.

Objections in the communication

The objections in the Written Opinion relate to lack of novelty and/or inventive step of the claims 1-12 in the present patent application (Article 33 (1-3) PCT) in comparison to the prior art as cited above.

Amendment

In response to the objections raised, the validity of which is not conceded, we attach new claims pages to replace the corresponding existing pages, which are now cancelled, without prejudice to the later filing of a divisional application directed to any aspect of the subject matter thereof. These amendments are believed to render moot all those of the examiner's objections, which are not otherwise dealt with below.

The applicant agrees with the Examiner that the present form of the independent claim 1 is not novel compared to D1. The applicant has therefore found it appropriate to amend claim 1, by combining claim 1 and claim 4 into a single claim thereby limiting the scope of the invention.

1/4

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European patent and trademark attorneys

The description has been brought into conformity with the amended claims.

Novelty

The new amended claim 1, after combining old claim 1 and 4 into one, thus reads as follows:

1. *A connector box (103) adapted to be at least partly embedded in a fibre-reinforced part of a wind turbine, where said connector box (103) comprises a base part (305) and at least one sealing part (304) consisting of a sealing bag, where said sealing bag seals off and protects at least one compartment (401) between the sealing bag and the base part (305) during manufacture of said fibre-reinforced part, and which sealing bag can be partly removed after manufacture making said compartment (401) accessible, and where said base part (305) is adapted to fasten the connector box (103) in the fibre-reinforced part by having a larger circumference near its bottom than near its top.*

As mentioned, the underlined amended wording 'consisting of a sealing bag' is taken directly and unambiguously from claim 4 in the application as filed wherefore there is no contravention of Art. 19(2) PCT.

The applicant respectfully submits that the amended claim 1 above differs from the subject matter of D1 by the feature of a:

'connector box comprising ... at least one sealing part consisting of a sealing bag'.

Thus, the applicant respectfully submits that this new subject matter is not disclosed in the reference D1 and that the amended claim 1 is novel (Art. 33(2) PCT).

Inventive step

Brief comments on amended claim 1:

The main object of the present invention is to provide a connector box to be partly or totally embedded in a fiber-reinforced part. The described connector box in a sealing bag is advantageous in protecting the box as well as keeping the resin out of the compartment of the connector box during manufacture in an effective yet simple manner and at a low cost. On the same time the sealing bag can easily be ripped open or removed after manufacture to render the box and its interior open and accessible. A further advantage is that the sealing bag protects the exterior of the connector box so that it will appear with a better finish after removal of the sealing bag. By using a sealing bag, the problems of having otherwise to use specially designed lids or covers in order to seal off the interior of the box completely are also avoided, which again results in lower tolerances to the dimensions and materials of the box, and hence lower production costs.

Brief comment on the disclosure in D1:

The invention in D1 relates to a box to be partly embedded in a composite structure. The box is equipped with a plurality of holes in the sides through which sensors can enter the box and come together. The interior of the box is accessible via a lid on top of the box through which the various devices inside the box can be maintained. Further, the interior is connected to a port through which the data collected within the box departs the structure.

Problem to be solved:

As discussed above, the problem to be solved by the invention as claimed in new claim 1 is therefore to provide a connector box to be embedded in a fiber-reinforced part which is capable both of effectively protecting any sensitive elements in its interior and keeping resin out during manufacture and of giving simple access to its interior after manufacture.

It is the opinion of the applicant that a person skilled in the art faced with the above mentioned problem and having regarded the disclosure in D1 would not come up with the solution including the features disclosed in the new claim 1 in the present invention. A sealing bag is not in any way hinted to nor indicated in the document D1 but solves the aforementioned problem in an elegant and simple way with even further advantages not merely to be foreseen.

The invention of claim 1 is therefore not obvious over the prior art document and hence must be considered as involving an inventive step (Art. 33(3) PCT).

This goes mutatis mutandis for the independent claim 11 relating to a blade of a wind turbine comprising a connector box as described in claim 1.

The dependent claims, depending from allowable independent claims, must also be considered allowable.

Taking into account the above comments as well as the amended application, we respectfully request that the opinion of the IPEA is reviewed and that novelty and inventive step are recognized. Should the Examiner not be convinced by the above explanations we hereby ask for a second written opinion or a telephone interview with the Examiner before the IPRP (Chapter II) is prepared.

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Basis for claim amendment

New claim 1:


Old claim 4,

Description p.3 line 31 – p. 4 line 4,

Figure 3 and corresponding description p. 8 line 3-12.

Yours faithfully

Zacco Denmark A/S


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